HB 790 Committee Meeting – Sidney, Dec 9, 2005

HB 790 Study Elements:

SPLIT ESTATES

- procedures and timelines for giving notice to surface owners;

  Current Laws: Montana 10 to 90 days; Wyoming 30 to 180 days, ND 20 days (all - actual notice)
  Other notices in MT: Notice of well drilling permit – 10 days (published); Notice of spacing or Forced Pooling – 20 days prior to Hearing (actual notice); other BOGC hearings – 10 days (published)

- minimum provisions for surface use agreements;
- elements that should be considered in surface use agreements, including but not limited to road development, onsite water impoundments, and the quality and disposal of produced water, and onsite water impoundments;

  Current law does not specify the form or substance of an agreement, but does seem to envision the existence of an agreement. For approval of new CBM operations, MBOGC Record of Decision requires a written agreement be offered and a copy made available to Board upon request if accepted by the parties. If an agreement is not in place, the operator must certify that it was offered.

- provisions for addressing disagreement on estimated damages between the surface owner and the mineral owner;

  Current Law: Montana - ...person seeking compensation... may bring an action for compensation in the district court of the county in which the damage was sustained. North Dakota: landowner may bring action in District court—if court awards damages greater than offered by the developer, court may award court costs, attorney's fees and interest to the landowner. WY also allows court action by landowner, provides for mediation, arbitration, or alternate dispute resolution by "mutual agreement" .

- bonding requirements, if any, based on the type of activity.

  Current Laws in MT and ND do not provide for "bonding on"; WY provides for a minimum $2,000 well site bond; bond is in addition to the usual reclamation bond and the O&G Commission makes final decision about size of bond and may establish a blanket bond for all well on a surface owners land.

RECLAMATION AND BONDING FOR COAL BED METHANE OPERATIONS

- assessing current requirements for reclamation and bonding for coal bed methane

operations and determining if they are adequate;

MT: "the restoration of surface lands to their previous grade and productive capability after a well is plugged or a seismographic shot hole has been utilized and necessary measures to prevent adverse hydrological effects from the well or hole, unless the surface owner agrees in writing, with the approval of the board or its representatives, to a different plan of restoration; WY: ""Reclamation" means the restoring of the surface directly affected by oil and gas operations, as closely as reasonably practicable, to the condition that existed prior to oil and gas operations, or as otherwise agreed to in writing by the oil and gas operator and the surface owner"; ND requires reclamation "as closely as practicable to original condition"

- evaluating laws related to surface damage, coal bed methane exploration, coal bed methane operations, and coal bed methane reclamation in other states;

  MT, ND, and WY generally do not distinguish between CBM and Conventional gas in rules or operating requirements; WY has special spacing rules for Powder River Basin CBM. WY has a discretionary bond to cover CBM water impoundments.

- exploring alternatives and approaches for balancing mineral rights with surface rights;

  MT, WY and ND have damage/compensation laws; all 3 states recognize the surface estate is subservient to the mineral estate, therefore the "balancing" statutes tend to emphasize use agreement, compensation for damage, notice and similar process requirements

- identifying the relationship between federal law and state law with regard to split estates and jurisdiction;

  BLM rules generally require surface use agreements with a "bond-on" provision if one is not obtainable. BLM asserts jurisdiction for wells on Federal Minerals; BOGC does not assert jurisdiction over Federal mineral operations, except UIC wells.

- evaluating the necessity and feasibility of post operation reclamation requirements or alternatives, including water pits and impoundments

  MT, WY, and ND require restoration or reclamation of areas disturbed for oil and gas drilling. All 3 allow an "alternate plan" of restoration which generally defers to the surface owner the level of reclamation accomplished on private land. For example, WY allows CBM impoundments to remain unrestored and transferred to landowner; bonds may be waived for such impoundments.

Final Coal Bed Methane Order for Powder River Basin Controlled Groundwater Area

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE BOARD'S OWN MOTION FOR AN ORDER ESTABLISHING COAL BED METHANE OPERATING PRACTICES WITHIN THE POWDER RIVER BASIN CONTROLLED GROUNDWATER AREA IN BIG HORN, POWDER RIVER, ROSEBUD, TREASURE AND CUSTER COUNTIES, MONTANA.
ORDER NO 99-99

Docket 130-99

Report of the Board

The above entitled cause came on regularly for hearing on the 9th day of December, 1999, in the Billings Petroleum Club, Billings, Montana, pursuant to the order of the Board of Oil and Gas Conservation of the State of Montana, hereinafter referred to as the Board. At this time and place testimony was presented, statements and exhibits were received, and the Board then took the cause under advisement; and, the Board having fully considered the testimony, statements and exhibits and all things and matters presented to it for its consideration by all parties in the Docket, and being well and fully advised in the premises, finds and concludes as follows:

Findings of Fact

1. Due, proper and sufficient notice was published and given of this matter, the hearing hereon, and of the time and place of said hearing, as well as the purpose of said hearing; all parties were afforded opportunity to present evidence, oral and documentary.

2. Current interest in developing coal bed methane reserves in the Powder River Basin has raised concerns about the effects of such development on groundwater in the area because production of such reserves will require dewatering the coal beds

Order

IT IS THEREFORE ORDERED by the Board of Oil and Gas Conservation of the State of Montana that this general order applies to coal bed methane wells drilled on private and state land in the Powder River Basin Controlled Groundwater Area as established by the Department of Natural Resources and Conservation. It does not apply to lands owned by Indian Tribes or held in trust by the United States for Indian Tribes or individual Indians.

1. Applications for permit to drill exploratory wells to determine the potential for coal bed methane (CBM) production will be approved as wildcat gas wells under existing rules. Well density is limited to one well per section, setback at least 990 feet from the section lines. Locations must be advertised and the ten day waiting period prior to approval applies.

2. Wells drilled for the purpose of exploring for or producing CBM must meet the drilling, completion and plugging requirements of any other well under the Board's general rules and regulations. However, wells that are drilled to the top of the target coal and have casing set and cemented back to surface need not be equipped with a separate string of production casing.

3. Requests for temporary spacing units of less than 640 acres or for increased well density for a test pod of wells or for a "pilot" project of limited scope may be authorized by the Board after notice and public hearing. Notice of public hearing will be published by the Board in the manner customarily used by it; the applicant must provide actual notice of proposed hearing to the record owners as required under Section 82-11-141(4)(b), MCA, and to water right holders in the temporary spacing unit proposed for the pilot project.

4. An application for public hearing to establish permanent spacing and field rules for a CBM development project must include such information as is customarily required for establishment of well spacing and field rules for conventional gas production. Applicants must also present at the hearing a field development plan including maps, cross-sections and a description of the existing hydrologic resources, including water wells or springs that may be affected by the project, and a copy of the water mitigation agreement being used or proposed for use in the project area. The applicant must provide an estimated time frame for development activities, a monitoring/evaluation plan for water resources in the project area, the proposed number and location of key wells which will be used to determine water levels and aquifer recovery data, and water quality information for target coal aquifers available at the time of hearing. The Board will

publish its customary notice of public hearing; the applicant must provide actual notice as required in Section 82-11-141(4)(b), MCA, and must notify all record water rights holders within one-half mile of the exterior boundary of the proposed field area.

5. Notice to water rights holders must be given by mailing the written notice, postage prepaid, to the address shown by the records of the Department of Natural Resources and Conservation at the time notice is given. The notice must briefly summarize the application and provide the time and place of the public hearing.

6. Coal bed methane operators must offer water mitigation agreements to owners of water wells or natural springs within one-half mile of a CBM field proposed for approval by the Board or within the area that the operator reasonably believes may be impacted by a CBM production operation, whichever is greater. This area will be automatically extended one-half mile beyond any water well or natural spring adversely affected. The mitigation agreement must provide for prompt supplementation or replacement of water from any natural spring or water well adversely affected by the CBM project and shall be under such conditions as the parties mutually agree upon. Mitigation agreements are intended to address the reduction or loss of water resources and may exclude mechanical, electrical, or similar loss of productivity not resulting from a reduction in the amount of available water due to production from CBM wells. The Board will review areas covered by mitigation agreements as part of its review of field development proposals.

7. Coal bed methane production will be reported on Board Form No. 6 and will include produced volumes of both gas and water. Form No. 6 will be filed for all unplugged CBM wells even if the only production reported is water. An initial pre-production static water level will be reported for each newly completed CBM well at the time Form No. 4 is filed. For those wells designated as key wells, the operator will report an annual shut-in static fluid level following a shut-in period of at least 48 hours or such lesser time as is adequate to determine a stabilized level. For those wells designated as dedicated monitoring wells, a quarterly fluid level will be reported.

8. The requirement to run electric or radioactive wells logs will be met if the operator logs one well in each quarter section to the deepest target CBM horizon. The minimum log required is a gamma-ray log, which may be run through pipe; however, a gamma ray-density log in open hole is recommended.

9. Approval of development plans and establishment of field rules and spacing requirements will be under such conditions and time frames as the Board may deem adequate. Done and performed by the Board of Oil and Gas Conservation of the State of Montana at Billings, Montana, this 9th day of December, 1999.

BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

_____

Dave Ballard, Chairman

_____

Denzil Young, Vice-Chairman

_____

George Galuska, Board Member

_____

Jack King, Board Member

_____

Allen Kolstad, Board Member

_____

Stanley Lund, Board Member

_____

Elaine Mitchell, Board Member

ATTEST:

Terri Perrigo, Executive Secretary

MONTANA DEPARTMENT OF NATURAL RESOURCES

AND

CONSERVATION

BOARD OF OIL AND GAS CONSERVATION

Record of Decision:

Statewide Coal Bed Methane Exploration and Development

March 26, 2003

1.0 Introduction

The Montana Board of Oil and Gas Conservation (MBOGC), the Montana Department of Environmental Quality (MDEQ), and the Bureau of Land Management (BLM) as joint lead agencies, prepared the Montana Final Statewide Oil and Gas Environmental Impact Statement (FEIS) and Proposed Amendment of the Powder River and Billings Resource Management Plans (RMPs). A Draft Environmental Impact Statement (EIS) was prepared to examine the impacts of the proposal and alternatives. The Final EIS was prepared based upon comments received on the draft. The FEIS focused on the potential impacts of coal bed methane (CBM) exploration and production throughout the state. The affects of anticipated conventional oil and gas development were also analyzed.

As lead agencies, the MBOGC, MDEQ and the BLM are responsible for compliance with the Montana Environmental Policy Act (MEPA), and National Environmental Policy Act (NEPA), respectively. However, the information and proposed decisions discussed in the plan are not final until the State agencies and the BLM sign a Record of Decision (ROD). This document is the ROD for the MBOGC and does not in any way make decisions for the BLM.

1.1 Purpose and Need

The purpose of the FEIS was to analyze potential impacts from oil and gas activity, particularly from CBM exploration, production, development, and reclamation statewide. The MBOGC is responsible for regulating the development of state and fee oil and gas resources. This FEIS was used to analyze options for CBM development including mitigating measures that would help minimize the environmental and social impacts related to these activities. The alternatives analyzed provided a range of management options for conducting and permitting CBM development.

The preferred alternative (Alternative E) is the State permitting agencies proposed outline for altering the current oil and gas program to allow for CBM development. The FEIS focused the analysis on the oil and gas development issues not covered in the current program, such as water management from CBM production.

1.2 Background Information

The MBOGC currently manages CBM developments based on the Stipulation and Settlement Agreement reached in the First Judicial District Court, Lewis and Clark County, between the MBOGC and the Northern Plains Resource Council, Inc., on June 19, 2000. The Stipulation also provides for the preparation of a comprehensive supplemental state-wide programmatic EIS pursuant to the Montana Environmental Policy Act, 75-1-101 *et seq*. and the Department's regulations at A.R.M. 36.2.521 *et seq*. addressing the environmental consequences of CBM exploration, development, production, reclamation and closure. The MBOGC may fulfill this obligation by participation in, and providing final approval of another programmatic or regional EIS prepared pursuant to MEPA or NEPA.

The MBOGC has fulfilled this obligation by participating in this EIS process and providing approval of the Final EIS. The stipulation and settlement agreement remains in effect until this Record of Decision (ROD) is formulated and signed for this FEIS.

2.0 Decisions

2.1 Decision Being Made

After considering the proposal, issues, alternatives, potential impacts, and management constraints, MBOGC has selected Alternative E along with the CBM Plan of Development (POD) outline. The Preferred Alternative (E) is approved for implementation as described in the FEIS and this Record of Decision (ROD).

A number of mitigation measures to further reduce environmental impacts of the proposal were developed pursuant to the Montana Environmental Policy Act, or MEPA (§ 75-1-201(5)(b), MCA), and are described in Chapter 2 of the FEIS. CBM Operators can implement these mitigation measures voluntarily, or, MBOGC can incorporate them into a permit or field order depending on site-specific conditions, and upon the authority of the MBOGC to impose them.

The basis for this decision is an analysis conducted by the State co-lead agencies and the BLM. This analysis is documented in the *Montana Final Statewide Oil and Gas EIS and Proposed Amendment to the Powder River and Billings RMPs*, published in January 2003.

2.2 Approved Oil and Gas Program Amendments (Conditions)

The amendments under consideration consist of a number of oil and gas related determinations for CBM development. These determinations would apply to state and fee mineral operations regulated by the MBOGC. The determinations include the following:

1. Exploration and development of CBM resources on MBOGC regulated lands are allowed subject to agency decisions, lease stipulations, permit requirements, and surface owner agreements.

2. Operators will be required to submit to the MBOGC a Project Plan of Development (POD) outlining the proposed environmentally responsible development of an area when requesting CBM well densities greater than 1 well per 640 acres.

3. The POD will be developed by the CBM operator in consultation with affected surface owner(s), and other involved permitting agencies.

4. The POD is to be submitted in draft form so that it can be reviewed and any changes made prior to submission to the MBOGC for approval.

5. The POD will include the following sub-plans: a Water Management Plan, a Surface Use Plan, and a Reclamation Plan.

6. A Water Management Plan for Exploration will be required for CBM exploration wells drilled under statewide spacing rules and for each POD.

7. Produced Water Management Plans and permits would be approved by the MBOGC. The MBOGC may request copies of surface agreements, water well mitigation agreements, or certifications that such agreements were offered, as part of the permit or POD submission.

8. MBOGC will permit the construction of CBM water impoundments under its current regulatory authority for oil and gas related earthen pits. The MBOGC intends to conduct a scientific investigation of the siting, construction, and operation of such impoundments and will use the results of that investigation to review its existing rules and policies. If necessary the MBOGC will adopt new rules or modify existing rules as appropriate.

9. There would be no discharge of produced water (treated or untreated) into the watershed unless the operator has an approved MPDES permit or a non-significance review by MDEQ (see section 5.3.3 "Montana Water Quality Act" below) and can demonstrate in the Water Management Plan how discharge could occur in accordance with water quality laws without damaging the watershed.

10. To minimize surface disturbance as many wells as economically and technically feasible will be co-located on a single well pad.

11. Well spacing rules would determine the number of wells per coal seam per designated spacing unit.

12. The number of wells connected to each compressor would be maximized and natural gas-fired engines for compressors and generators or other emission controls would be required.

13. In areas where sensitive resources including people are present alternative fuels (including electricity) or other sound mitigation measures may be used for compressor operations if it helps to reduce the sound level. The MBOGC may consider establishing the sound level and minimum distance to sensitive sound receptors as part of the POD approval process or as a rule or MBOGC Order.

14. Operators will be encouraged to post and enforce speed limits to reduce fugitive dust emissions, minimize effects to wildlife, and help maintain regional air quality.

15. Proposed roads, flowline routes, and utility line routes would be located to follow existing routes, transportation corridors or areas of previous surface disturbance when possible.

16. Operators will be encouraged to place roads on or adjacent to tract boundaries where practical to reduce impacts on residential and agricultural lands. However, the MBOGC recognizes that surface owner agreements may govern road route, type of road, maintenance and eventual disposition or reclamation of roads and transportation facilities.

17. MBOGC will encourage operators and private owners to agree to the use of CBM-related roads for CBM operations only to reduce public access and overuse.

18. When wells are abandoned, the associated oil and gas roads would be closed, or could remain open at the surface owner's discretion. If the roads were requested to be closed they would be rehabilitated.

19. Mitigation measures or stipulations designed to protect natural resources will be attached to APDs as appropriate, additional site specific mitigation measures will also be attached to APDs as site conditions warrant. POD's approved by MBOGC Order will be subject to those stipulations or conditions imposed by the MBOGC. The MBOGC may choose to delegate approval of supplemental POD's or changes to existing POD's to its staff.

To the extent practical, the MBOGC's staff and the appropriate office of the Bureau of Land Management will co-operate in developing common procedures that will allow a single comprehensive Plan of Development for areas involving

federal, state and private land to be submitted for approval to the permitting agencies. BLM and MBOGC will develop procedures to coordinate the review of POD's by appropriate affected agency staff and other agencies having permit authority, and provide a coordinated recommendation to the MBOGC and BLM managers for approval, modification, or rejection of POD's. The MBOGC will consider preparation of a step-by-step guideline for preparation and submission of the Project Plans of Development. MBOGC staff will review the document currently being written by BLM, and may choose to adopt all or portions of this document as interim guidance until a state/private land guidance document can be prepared. This guideline will provide direction to industry to ensure that all necessary information is submitted to federal and state decision makers.

2.3 Decision Not Being Made

This decision does not include approval of any specific oil and gas exploration, production, or development activities. Furthermore, this decision does not apply to minerals administered by the BLM or federal minerals under the surface of lands managed by the following federal agencies: Forest Service, National Park Service, Bureau of Indian Affairs, Fish and Wildlife Service, or federal minerals under private lands within the administrative boundaries of the National Forest System Lands. Additionally, this decision does not apply in any way to minerals administered by sovereign Native American Tribes.

The FEIS documents the direct, indirect, and cumulative effects that may result from the development of CBM based on the reasonably foreseeable development scenario activities analyzed in the study. The analysis acknowledges that a decision to allow CBM development recognizes that current oil and gas leases include the right to develop CBM under standard lease terms and conditions. MBOGC stipulations, project plan requirements or specific mitigation measures directing CBM development are attached at the APD approval stage. Thus, the analysis assumes that appropriate environmental protection measures will be implemented as required by project plans and that all site-specific developments will be sufficiently scrutinized prior to APD approval. These assumptions do not represent proposed or planned activities. They were analyzed in the FEIS to disclose the range of long-term effects that may result from adoption of the CBM development criteria under Alternative E – the selected alternative.

2.4 Implementation

This decision is effective upon signing of this ROD. The MBOGC will start accepting applications for drilling permits for exploratory wells and for CBM development projects with fully completed PODs 15 days following the signing of this ROD. APD approvals for wells in proposed development projects will be issued once PODs have been reviewed and approved by the MBOGC at a hearing held to increase well density to project level, or for the purpose of approving a CBM project, supplemental project, or project modification. Wells in approved projects will be approved administratively provided the proposed well complies with the approved plan and the MBOGC order approving the project. The MBOGC may choose to adopt polices by Board Order or rule to establish procedure for approving modifications of existing approved projects or expansion of approved projects.

3.0 Public Involvement

This section summarizes the public participation efforts for identifying issues and comments received during the preparation of the Draft and Final EISs.

3.1 EIS Public Participation

3.1.1 Public Involvement in Identifying Issues

A public participation plan was prepared to provide management and team guidance for developing the RMP EIS and Amendments, and to ensure public involvement during the entire document preparation process. During the scoping of the EIS, formal and informal public input was encouraged and sought.

Preparation of the FEIS began with the publishing of a Notice of Intent in the *Federal Register* on December 19, 2000 informing the public of the intention to plan and announcing the notice of availability for the planning criteria. Extensive public involvement occurred during preparation of the 2003 FEIS to identify and address relevant environmental issues.

The public was informed of, and involved in, the EIS process through additional *Federal Register* notices, news releases, direct mailings, and public meetings. Several news releases were published in local papers, announcing the beginning of the plan, encouraging public involvement, and publicizing the availability of the planning criteria. Brochures were mailed to over 1,000 individuals, groups, and agencies in December 2000 notifying the public of the expected issues and upcoming public scoping meetings.

Public scoping meetings were conducted in five towns across the State with a total attendance of 329 people. These meetings were held in January 2001 at Ashland, Billings, Broadus, Miles City, and Helena.

A total of 311 written communications, with more than 2,100 comments, were received after the public scoping meetings. Most of these written comments reiterated oral comments from the public meetings. Oral and written comments covered a spectrum of issues, but the majority was concerned with the management of water, lands, air, and

wildlife resources. Records of public comments and concerns are on file in the BLM Miles City Field Office.

A *Public Comment Summary and Recommendations Report* was prepared and made available electronically and in hardcopy in March 2001. This report summarizes the comments received from the public scoping meetings. These issues and the alternatives are summarized below and presented in detail in the Final EIS.

3.1.2 Summary of Public Involvement on the Draft and Final EIS

On February 15, 2002, a Federal Register notice was published beginning the comment period for the DEIS. Approximately 1,500 copies of the DEIS/RMP Amendment were distributed to the public and other federal and state agencies for comment. Additionally, a copy was posted on the Montana Department of Environmental Quality's (MDEQ's) web site for public downloading. The DEIS presented five alternatives including the no action alternative, and the agencies' preferred alternative (Alternative E).

The agencies received more than 8,800 e-mails, faxes, letters, cards and oral statements on the Draft EIS during the public comment period which ran through May 15, 2002. In addition to the written comments six public hearings were held at communities across the state in April 2002, to receive oral comments on the Draft EIS. These communities are Billings, Bozeman, Broadus, Crow Agency, Lame Deer, and Helena. Over 700 citizens attended these hearings.

Transcripts from the public hearings are available on the BLM Miles City Field Office Internet site at http://www.mt.blm.gov/mcfo. All participants were encouraged to submit written comments following their oral testimony. These hearings were also a forum for the MDEQ to collect public comments on the proposed CBM Produced Water General Discharge Permit (CBMPW-GDP Permit No.: MT-G390000).

From the 8,800 communications, more than 25,000 comments were made on the DEIS. Many of the comments tended to be polarized between those supporting CBM development urging selection of Alternative E, and those opposed to CBM development requesting additional safeguards be put in place to protect surface owner rights and downstream resources from impacts. Comments that presented new data, questioned facts or analysis, or raised questions or issues bearing directly upon the alternatives or environmental analysis were responded to in Chapter 5 of the Final EIS. Comments expressing personal opinions or statements were carefully considered in the decision-making process for developing the FEIS but not responded to directly. Records of all comments are available at the BLM Miles City Field Office.

3.1.3 Protest Procedures

The EPA Notice of Availability for the Final EIS was published in the *Federal Register* on January 17, 2003. The public was given the opportunity to protest the BLM's preferred plan to the BLM Director in Washington D.C. following the instructions included in the FEIS. The 32-day protest period ended February 18, 2003.

The MBOGC opened a public comment period on the final EIS on January 18th, 2003; the comment period ended on February 18th, 2003. Additionally, the MBOGC scheduled and held a public hearing on February 6, 2003 in Billings to receive comments from the public prior to proceeding with the ROD. Copies of written comments were distributed to each MBOGC member and a transcript of oral testimony from the public hearing has been prepared. Public comments and the transcript are available for public review at the MBOGC's Billings office. The MBOGC received 936 written comments, 36 of which generally were not supportive of the preferred alternative and/or CBM development in general; 900 of the comments generally favored the preferred alternative and supported CBM development.

3.2 Consultation with Other Agencies

Federal and state agencies were contacted individually to gather input for the EIS. Consultation was conducted with other resource management agencies at the Federal and State level to identify common concerns for the planning effort.

In addition to the two state lead agencies, a number of other state departments were consulted, including the Montana Bureau of Mines and Geology, the Montana Department of Fish, Wildlife, and Parks, the Montana Department of Natural Resources and Conservation, and the Montana State Historic Preservation Office. Additional state agencies from Wyoming who participated in the preparation of the EIS and various technical meetings included the Wyoming Department of Environmental Quality, Wyoming State Engineers Office, and the Wyoming Office of Federal Land Policy.

Federal agencies participating as cooperating agencies included the EPA, Bureau of Indian Affairs (BIA), and the Department of Energy (DOE). In addition to these agencies the Department of Agriculture (DOA) Forest Service and the Wyoming BLM offices in Buffalo and Casper contributed to the review and comment processes for the FEIS.

As required by Section 7 of the Endangered Species Act (ESA) of 1973, the BLM prepared and submitted a biological assessment to the U.S. Fish and Wildlife Service (FWS). This document defined potential impacts on threatened and endangered species as a result of management actions proposed in the EIS. The FEIS contains the biological assessment and FWS biological opinion on the impacts from the amendments to threatened and endangered species.

4.0 Alternatives

The FEIS described five alternatives that analyzed different actions regarding the management of CBM activities. The "No Action" Alternative describes and analyzes current regulation of CBM activities by MBOGC, MDEQ, and the BLM while the other four alternatives describe and analyze other management actions that provide different methods of protection to other resources and land uses from CBM activities. The preferred alternative (Alternative E) identified in the Final EIS has been selected for implementation. The decision took into account the impacts of the alternatives as well as public comment and the potential for the Alternative E to resolve the issues.

4.1 Alternatives Considered

Chapter 2 of the FEIS describes the alternatives analyzed and the alternatives excluded from detailed analysis. The alternatives analyzed in detail are described briefly below.

4.1.1 Alternative A—No Action (Existing CBM Management)

Under the Stipulation and Settlement Agreement the MBOGC would be limited to issuing, upon proper application by the operator, 200 CBM permits for water quality, quantity, and for testing the coals. Additional restrictions limit the number of wells per pod to nine and pods per township to one, and prohibit the discharge of any water into the waters of Montana or the U.S. In addition to these exploration wells, the agreement specifies that Fidelity Exploration and Production (formerly Redstone Gas Partners) could apply to the MBOGC for up to 90 additional wells for its CX Field Pilot Project in southeastern Big Horn County. The total producing wells in the CX Pilot Field cannot exceed 250. In addition to these, Fidelity can drill another 75 exploration wells for a total of 325 wells. Discharge of production water was arranged through the MDEQ, via a Montana Pollutant Discharge Elimination System (MPDES) permit. The current Fidelity MPDES permit allows for up to 1,600 gallons per minute (gpm) to be discharge into the Upper Tongue River from up to 11 discharge points.

Testing of CBM wells that have been previously drilled would continue, provided no water is discharged to the waters of Montana or the U.S. No commercial production of methane would occur from any of the wells. For each landowner where test wells are drilled, the operator conducting the drilling would enter into a water well mitigation agreement. All wells drilled under the terms of the settlement agreement would be required to comply with the MBOGC's regulations. After test wells are completed, they would be abandoned or plugged according to the MBOGC's regulations.

4.1.2 Alternative B—CBM Development with Emphasis on Soil, Water, Air, Vegetation, Wildlife, and Cultural Resources

The State regulatory agencies would review and approve CBM activities with an emphasis on natural and cultural resource protection. The State would use stringent management measures to minimize or eliminate adverse impacts to other resources during development. Examples of such management measures would include; requiring all compressors to be fueled by natural gas; and water from producing wells would be injected into a different aquifer. Environmental mitigation measures envisioned to reduce impacts on various resources include the harvesting of commercially valuable trees during construction of ROWs and roads; use of CBM-related roads would be limited to industry; speed limits would be posted and enforced to reduce fugitive dust emissions; operator's weed prevention plans must include measures to prevent the spread of weed seeds from any vehicle or equipment; and wildlife surveys required by the EPA to identify endangered status species would be conducted prior to the approval of APDs.

4.1.3 Alternative C—Emphasize CBM Development

The State regulatory agencies would review and approve CBM activities with an emphasis on facilitating production of CBM. The State would use the least restrictive mitigation measures to minimize or eliminate adverse impacts to other resources. Examples of such measures would be to authorize the discharge of water produced with CBM onto the ground or into the water bodies when the discharge water meets applicable standards. Compressors could be fueled by gas, diesel, electricity, or other means as long as other permitting standards, such as air quality, are met.

4.1.4 Alternative D—Encourage CBM Exploration and Development While Maintaining Existing Land Uses

The State regulatory agencies would review and approve CBM activities with an emphasis on maintaining or enhancing land uses in combination with CBM development. The State would use mitigation measures, as much as possible, that compliment the needs of landowners and other lessees. Management of water produced with CBM would be greatly influenced by the surface owner. The water could be made available for beneficial uses or may be required to be reinjected. Location of facilities, such as compressors, would be influenced by the needs of the landowner.

4.1.5 Alternative E—Preferred Alternative

The MBOGC would review and approve CBM activities in a manner that facilitates efficient and orderly CBM activities while providing the appropriate type of resource protection on a site-specific basis. Different management actions, such as discharge, impoundment, re-injection or beneficial use, would be applied to water produced with CBM. Likewise, different management actions such as location, size, and mufflers (as required) would be applied to compressors. Also, property rights considerations, such as the handling of surface disturbance, would be handled by requiring the operator to consult with the owner of the surface rights.

Alternative E is the MBOGC's preferred alternative and would provide management options to facilitate CBM exploration and development, while sustaining resource and social values, and existing land uses.

4.1.6 Environmentally Preferred Alternative

Identification of the environmentally preferable alternative involves difficult judgments because the effects to the biological, physical and human environment must all be considered along with the social, economic and other requirements of present and future generations. On the basis of the effects on the biological and physical resources only Alternative A is the environmentally preferable alternative because of the limited number of wells which would be drilled and the minimal production infrastructure that is associated with this reduced development scenario. On the basis of social and economic considerations, Alternative E would be recognized as the environmentally preferable alternative because it combines an assortment of management actions to commence CBM exploration and development without economic constraints while still supporting resource and social values, and protecting existing land uses.

5.0 Rationale for the Decisions

5.1 Rationale for the Selected Alternative

The MBOGC has selected the Proposed Action for development of CBM within the State of Montana after considering the potential impacts of all the alternatives. The selected alternative will best meet the purpose and need to develop a program for the exploration, development, production and reclamation of CBM while minimizing the long-term adverse environmental and social impacts by imposing statutorily authorized conditions. Operators will be required to submit a Project Plan of Development (POD) outlining the proposed environmentally responsible development of an area when requesting CBM well densities greater than 1 well per 640 acres. The MBOGC has selected this alternative over the No Action Alternative because it meets all requirements of state statutes and rules.

All practicable means to avoid or minimize environmental harm have been included in the selected alternative. For example, combined water management options have been selected to allow for the greatest flexibility to select the most environmentally sensitive option to protect area water quality and Tribal water resources. Air quality protection measures selected combine methods for minimizing air pollutants during the construction, operation and reclamation phases of development. These include reducing fugitive dust from roads during construction and maintenance activities, decreasing compressor emissions through the use of natural gas and electric boosters and diminishing of natural gas releases from area mines and seeps by recovering the gas that may otherwise be lost. Surface disturbances will be reduced by co-locating multiple vertical wells and, if necessary to further reduce surface impacts, directionally drilled wells to deeper coals on the same well pad and through the use of placing all utilities along existing routes where practical. These measures, together with other general environmental mitigation measures, will meet all applicable requirements and, achieve water quality objectives, while CBM development is taking place in the State of Montana. Furthermore, the use of these adaptive management approaches allows for incorporation of future technology, which may improve the options available to minimize environmental effects.

The following sections discuss in detail the rationale for selection of Alternatives E.

5.2 Resolution of Issues

The purpose of developing and presenting alternatives is to allow the decision maker an opportunity to address and resolve issues recognized during the scoping process. Alternatives meet the purpose and need for doing the EIS, and balance ways to address different resource issues. The resolution of key issues forms the framework of an alternative, with the resolution of lesser issues included around the alternative's central idea. This section describes how those key issues were resolved under the selected alternative. The development of alternatives for this EIS centered on addressing regulatory issues in seven general areas:

- Air quality
- Coal mines
- Coal bed methane
- Hydrology
- Realty
- Indian trust resources
- Environmental mitigation

Although other relevant issues were considered, these key issues played a major role in defining the alternatives to be analyzed in detail.

5.2.1 Air Quality

Potential changes in ambient air quality from CBM activities, such as reduced visibility, air quality emissions, dust emissions, harmful gases, and changes in climate constituted the majority of issues related to this resource.

The selected alternative resolved the air quality issues by maximizing the number of wells connected to each compressor to reduce overall emission sources; requiring natural gas engines for compressors and generators so actual emissions would be further reduced; requiring electrical boosters when natural gas engines could not be used to maintain low emissions; requiring operators of federal leases to post and enforce speed limits to reduce fugitive dust emissions; and limiting CBM-related roads to industrial use through construction of additional fences and gates to minimize public access and overuse, thereby reducing fugitive dust and auto emissions. Additionally, the current MDEQ air permitting process includes analyses of equipment emissions and associated ambient impacts. Emission sources that may violate NAAQS (ambient standards) will not be issued a permit.

5.2.2 Coal Mines

This issue centered around buffer zone requirements for active coal mines, as well as the ability of adjacent or nearby coal companies to recover bonds and determine the effects on aquifer reconstruction. The issue also included CBM water discharge affecting new coal mines, the effects on oil and gas development, loss of coal production resources from CBM development, loss of methane resources because of venting, and subsurface coal fires.

The selected alternative included provisions for CBM producers to work with surface owners and mine operators with regards to placement of well locations and groundwater removal. The use of these agreements will reduce the impacts on mine operations and establish means to determine aquifer impacts and responsibilities during reconstruction. It is conceivable that CBM operations may reduce water in coal mines and create a situation where mines would need to obtain water for dust control, however this is viewed as a beneficial use of CBM produced water. Furthermore, the EIS analysis concluded that CBM development would not impact conventional oil and gas recovery due to the different geological strata produced, but may inhibit seismic prospecting in certain areas. Finally, the analysis found the chances of increasing methane venting from coal mines and subsurface coal fires were exceedingly remote.

5.2.3 Coal Bed Methane

The issue considered was the restriction of CBM exploration and production methods. Options included directional-drilling requirements; the number of coal seams per well bore, and chronological seam development. Other issues addressed were the drainage of methane from federal minerals and the effect of over-pumping water.

The selected alternative includes a requirement for directional drilling of deeper coals to reduce surface disturbances. No restrictions were included to require multiple coal seams per well bore or to require chronological coal seem development because it was concluded that the impact reduction by these requirements would be negligible. The EIS analysis also concluded that the effect of over-pumping water might cause some slight (<1/2 inch) subsidence but this does not represent a significant impact to surface lands.

5.2.4 Hydrology

Hydrology issues brought up during scoping included inspection, treatment, storage, and conveyance of CBM-produced water, short- and long-term effects on groundwater and surface water, impacts on water quality, and water rights. Requirements for site-specific Water Management Plans, treatment, conveyance methods, and the beneficial use of exploration and production water were considered.

The preferred alternative combines water management options emphasizing beneficial use of produced water. This adaptive management approach allows for the greatest flexibility to select the most environmentally sensitive option to protect area water quality and water resources. This also allows for development of future technologies that may improve inspection, treatment, storage, and conveyance methods. The selected alternative also requires that each CBM operator requesting spacing greater than 1 well per 640 acres develop a POD that includes a Water Management Plan (WMP). The WMP is required for both exploration wells and development sites. The WMP will detail how the operator plans to manage CBM produced water so that there would be no unnecessary or undue degradation, as defined by MDEQ, of water quality in any watershed. With regards to water rights, the operators are required under the selected alternative to offer water well mitigation agreements to affected surface owners within a one-mile radius of the well or project. Users of existing surface waters (irrigators) will be protected by the use of MPDES discharge permits (or non-significance review) and/or the development of TMDL standards for each river/stream affected in the basin.

5.2.5 Realty

Realty issues center on requirements for ROW corridors, power line placement, and use of or abandonment of roads from CBM development. Other issues included requirements for buried powerlines, installation of raptor safe power line equipment, and multiple utility corridor use.

The selected alternative includes requirements for the placement of proposed roads, flowline routes, and utility line routes along existing routes or areas of previous surface disturbance where possible, this will reduce surface

disturbances. Furthermore, road placement would be limited to tract boundaries where practical to reduce impacts on residential and agricultural lands. In an effort to help meet surface owner needs, the selected alternative requires operators to address in the POD was consulted for input into the location of roads, pipelines, and utility line routes. Powerlines are also a POD consideration; the operator will demonstrate how the proposal for power distribution would mitigate or minimize impacts on affected wildlife. For example, on BLM lands the operator may be required to bury a portion of the powerlines near sage grouse habitat to safely eliminate use by raptors, but when allowed to use aboveground lines, raptor-safe specifications are required. When wells are abandoned under the selected alternative, the associated oil and gas roads would remain open or be closed at the surface owner's discretion. If the roads were requested to be closed they would be rehabilitated.

5.2.6 Environmental Mitigation

Possible environmental mitigation measures to address resource issues presented in the scoping comments have been addressed under the selected alternative. These include commercially harvesting trees within rights-of-way (ROWs); implementation of high fire danger restrictions; road use enforcement; road placement restrictions; wellhead camouflage requirements; conducting wildlife surveys; and the use of early successional species along with appropriate late serial stage native species for revegetation.

In addition to the requirements outlined in the POD and in the WMP, the selected alternative has incorporated general environmental mitigation measures that will further reduce potential impacts. Subject to landowner preferences and the MBOGC's regulatory authority, these mitigation measures include provisions for the protection of visual resources, surface disturbance, fire danger, noxious weeds, air pollutants, and wildlife protection.

5.3 Selected Alternative Compliance with Legal Mandates

This section explains how the selected alternative satisfies the States' major legal, regulatory, and policy mandates or objectives. It is not exhaustive of all applicable management constraints, but explains why the alternatives were selected and how they conform with legal, regulatory, and policy requirements. The selected alternative has been chosen because it provides the best means to meet the regulatory requirements with the least likelihood of causing long term environmental impacts while still developing this important resource.

5.3.1 Montana Environmental Policy Acts (MEPA) Cumulative Effects Assessment

The Montana Environmental Policy Act (MEPA) mandates that State agencies, such as MBOGC and MDEQ, consider the potential impacts of an action prior to making a decision. The impacts of the Proposed Action have been evaluated in the Final Environmental Impact Statement prepared in 2003 by the MBOGC, MDEQ, and the BLM with EPA, BIA, DOE, and the Crow Tribe of Indians as official cooperators. Chapter 4 of the FEIS provides cumulative effects analysis.

There are no related future actions under concurrent consideration that, when considered in conjunction with past and present actions, are likely to result in additional significant impacts. Should future actions be proposed which have or may have cumulative effects, additional analysis pursuant to applicable requirements of MEPA would be conducted. The agencies have completed the required "hard look" at the potential impacts of CBM development and are issuing this ROD as the final step in the MEPA process.

5.3.2 Clean Air Act

Requirements of the Clean Air Act of Montana and the federal Clean Air Act will be met through compliance with new air quality permits for all compressor stations and other stationary sources. This includes abiding by requirements of the State Implementation Plans.

The Montana Department of Environmental Quality has reviewed the proposed activities and determined that the emissions associated with these projects would not trigger any additional air quality permitting requirements for the types of facilities associated with CBM development.

In the case where emissions are anticipated to exceed the federal or state ambient air quality standards, permits would not be issued. The current MDEQ air permitting process includes analyses of equipment emissions and associated ambient impacts. Therefore, this activity can be undertaken in accordance with the Montana and Federal Clean Air Acts.

5.3.3 Montana Water Quality Act

The selected alternative and required water management plans in combination with the MPDES (or other authorization) and Class V Injection permits will effectively prevent the degradation of water quality by elevated SAR value production water and trace pollutants to surface or ground waters. The water management plans will combine water handling practices and treatment methods to ensure that no undue or unnecessary degradation of water quality in any watershed occurs. These plans also limit the discharge of produced water

and provide for the capture and/or treatment of any produced water that is developed that does not meet WQA standards.

Limits in the MPDES permits (or other authorizations) will have been set so that assimilative capacities of the receiving river or stream are not exceeded. Numerical limits to the MPDES permits are currently under consideration by the Board of Environmental Review and may be set so that compliance with Montana water quality standards is required at the actual points where discharges from CBM operations enter surface waters, without the need for dilution.

Continued water management and treatment as specified in the selected alternative, including the MPDES permit conditions; will result in compliance with the Montana Water Quality Act.

5.3.4 Clean Water Act

The Clean Water Act of 1987, as amended, establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's Water.

On August 23, 2002, U.S. District Judge Sam E. Haddon ruled that unaltered ground water discharged as a result of coal bed methane development is not a "pollutant" as that term is defined in the federal Clean Water Act (CWA). Since the court found that unaltered ground water is not a pollutant under the CWA, the court went on to hold that discharges from coal bed methane development do not require permits under the federal NPDES permit program (*Northern Plains Resource Council v. Redstone Gas Partners*, CV 00-105-BLG-SHE, District of Montana, Billings Division). In it's ruling, the court explained that it's holding applied with equal force to Montana's MPDES permit requirements. This decision is currently being appealed.

In response to this ruling, the MDEQ is in the process of developing rules that, if approved by the Montana Board of Environmental Review, would require proposed discharges from coal bed methane development to be reviewed by the MDEQ to ensure compliance with Montana water quality standards. The rules would clarify MDEQ's authority to impose limits or conditions on discharges of coal bed methane to ensure that all water quality standards, including Montana's non-degradation requirements, will be met.

Through this process, the anticipated impacts to surface waters from CBM activities would be similar if the Haddon decision is upheld or if CBM discharges are subject to permitting under the MPDES program. For the sake of analysis it is assumed in this document that CBM discharges are subject to MPDES requirements, however if this is not the case, the anticipated impacts would be similar, but the permitting process would change.

5.3.5 Safe Drinking Water Act

The Safe Drinking Water Act is designed to make the nation's waters "drinkable" as well as "swimmable". Amendments in 1996 established a direct connection between safe drinking water and watershed protection and management The selected alternative requires that each operator prepare a Water Management Plan for their proposed development project that details how the operator plans to managed CBM produced water so that there would be no degradation, as defined by MDEQ, of water quality in any watershed. Furthermore, various water handling and disposal methods are coupled to existing permit requirements such as MPDES and Class V Injection that requires accounting for discharge standards and injection concentrations.

6.0 Monitoring and Compliance

6.1 Agency Monitoring

Pursuant to State law and under the proposed drilling permits issued for CBM exploration and development, MBOGC's representatives will have access to all CBM related facilities at all times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment or observing any monitoring or testing, and otherwise conducting all necessary functions related to the permits.

Additionally, further project monitoring will be conducted during and after implementation of the selected alternative. The purpose of the monitoring is to assure compliance with the APD permit requirements and federal, state and local regulatory requirements, detect problems or unanticipated events early, provide a basis for directing remediation of problems and to verify the restoration performance predicted in the FEIS. Staff from MDEQ, MBOGC and BLM will conduct inspections and gather samples as necessary at CBM operations and facilities across the basin under the authority of the respective agencies.

6.2 Resource Monitoring

Through its approval of a Plan of Development, the MBOGC may require monitoring for resources that could be significantly impacted by activities within the scope of operations subject to MBOGC's regulatory authority. For each resource, a series of items would be monitored. Each item is evaluated by its location, technique for data gathering, unit of measure, and frequency and duration of data gathering. When duration is not specified, the duration is for the next 20 years. The monitoring plan attached to the FEIS states the event that will be evaluated and lists the key resources that will be monitored if required by the POD approval. If a significant adverse impact can be corrected by a management action within the scope of the approved POD, the change will be implemented. If the adverse impact can be corrected only by a management action that is outside the scope of this plan, an additional or supplemental POD may be required.

The Department of Natural Resources and Conservation (DNRC) Technical Advisory Committee (TAC) for the Powder

River Basin Controlled Groundwater Area has proposed a groundwater-monitoring plan for CBM development. The monitoring recommendations are incorporated into the monitoring table. A complete copy of that plan is at the end of the Monitoring appendix in the FEIS. Specific monitoring requirements incorporated into POD approvals by MBOGC will be conducted by the CBM operator and will include specific reporting requirements to the MBOGC staff and to the TAC.

The Montana Department of Fish, Wildlife and Parks in association with the BLM and FWS have developed a wildlife monitoring and protection plan. The MBOGC does not have regulatory authority to require wildlife monitoring or protection plans, cultural resources investigations or protection plans, or similar restrictions on the ability of the owner to operate and manage the land as conditions of POD or APD approval. Moreover, the MBOGC has no authority to require landowners to allow BLM, FWS, or other state wildlife management agencies to conduct wildlife monitoring or cultural investigations.

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Recommended for adoption:

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Thomas P. Richmond, Administrator
Montana Board of Oil and Gas Conservation

MONTANA ACTIVE WELLS

Designated Federal

Definition	Well_Typ	Wells
Coal Bed Methane	CBM	179
Dry Hole	DH	2
Gas	GAS	1702
Injection - Disposal	SWD	15
Injection, EOR	EOR	146
Oil	OIL	781
Water Source	WS	11

Total **2836**

Designated Indian

Definition	Well_Typ	Wells
Dry Hole	DH	1
Gas	GAS	166
Injection - Disposal	SWD	1
Injection, EOR	EOR	1
Injection, Indian Lands	ILW	72
Oil	OIL	481
Water Source	WS	5

Total **727**

Not Federal or Indian

Definition	Well_Typ	Wells
Coal Bed Methane	CBM	815
Domestic Water	WW	11
Dry Hole	DH	75
Gas	GAS	4586
Injection - Disposal	SWD	152
Injection, EOR	EOR	619
Injection, Indian Lands	ILW	45
Monitor/Observation	MON	7
Oil	OIL	5608
Water Source	WS	85

Total **12003**

Data are derived from MBOGC database and are approximate and subject to revision. Mineral ownership of older wells has not, in all cases, been verified.

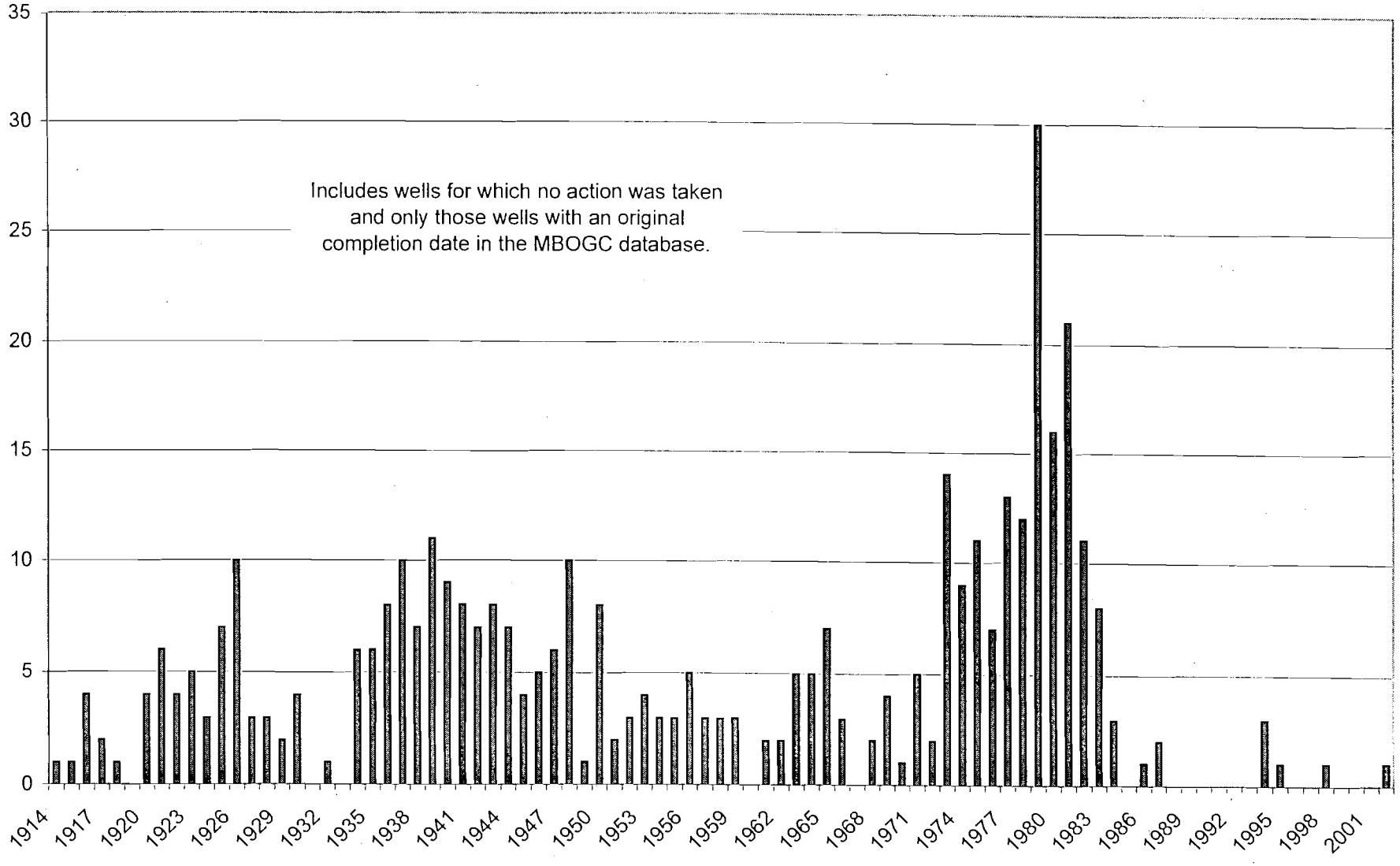
Some horizontal wells involve both federal and fee minerals and may be included only as to mineral ownership immediately under the surface location.

Orphan Well Plugging Program

Act_Req	Act_Taken	Wells
To Be Determined		14
Plugging and Restoration		108
Surface Restoration		8
Wells/Locations Requiring Action		**130**
None (resolved without action)	None	40
Plugging and Restoration	None	31
Surface Restoration	None	2
Issues Resolved Without Action		**73**
Plugging and Restoration	Plugged and Restored	277
Surface Restoration	Plugged and Restored	1
Wells Plugged		**278**
Plugging and Restoration	Surface Restoration	6
Surface Restoration	Surface Restoration	11
Surface Restorations		**17**
Total Wells Included on Orphan Well List		**498**

Type	Wells
Dry Holes	14
Injection (Enhanced Recovery)	28
Gas	44
Oil	18
Injection (disposal)	1
Unknown	3
Total Wells To Be Plugged:	**108**

Original Completion Dates of Wells Requiring Plugging and Restoration



Cumulative Per Cent Wells Requiring Plugging by Completion Date